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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,360

09/25/2006

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EXAMINER

WOOD, ELLEN S

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

03/01/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/567,360	Applicant(s) HANITA ET AL.	
	Examiner ELLEN S. WOOD	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 3-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (JP 2002-241608, hereinafter "Kikuchi") in view of Takagi et al. (US 2003/0130405, hereinafter "Takagi").

Kikuchi discloses a container formed from an oxygen uptake nature resin composition [0001]. The resin combines a polyamide resin, an oxidizing organic component, and a transition metal system catalyst [0011]. The terminal amino group concentration is not more than 40 eq/10⁶g [0011]. The polyamide is derived from a xylylenediamine and a dicarboxylic acid component [0011]. The oxidizing organic components are a polymer derived from polyenes, especially an acid denaturation polyene system polymer [0011]. The transition metal system catalyst is carboxylate of cobalt [0011]. The oxidizing organic component contains 0.01-10% of the weight of the resin composition [0011]. The transition metal system catalyst is contained in a quantity of 100-3000ppm [0011]. The resin sheet can be laminated to another layer to form a multilayer structure [0035].

Kikuchi is silent with regards to the resin composition as the island portion in an island-in-the-sea structure with an additional resin component as the sea portion.

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Takagi discloses a thermoplastic resin composition that has an island-and-sea micro structure constituted by component A and component B [0010]. Components A are amorphous thermoplastic resins and components B are crystalline thermoplastic resins [0013]. Component A is the island phase and component B is the sea phase in the micro structure [0047]. The examiner would like to note that component A of Takagi represents component B of the claimed invention and component B of Takagi represents component A the claimed invention. Component A consists of amorphous polyamides [0015] where component B consists of thermoplastic resins such as PET [0037]. The size of the island phase is usually 0.1 to 10 μm in major diameter [0046]. The thermoplastic resin composition makes molded articles with excellent mechanical strength [0047]. Since the thermoplastic resin composition according to the present invention is provided with an island-and-sea micro structure by combining two different types of thermoplastic resin, the composition is improved in molding workability with no serious compromise in fluidity [0060].

It would be obvious to one of ordinary skill in the art to combine the island-and-sea micro structure of Takagi with the resin composition of Kikuchi, because the island-and-sea micro structure of Takagi enables a thermoplastic resin to have improved molding workability and excellent mechanical properties, thus producing a packing container, when Takagi and Kikuchi are combined, with excellent oxygen absorbing properties and processability.

Response to Arguments

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3. Applicant's arguments filed 11/30/2009 have been fully considered but they are not persuasive.

4. The applicant argues that the effect of attaining the oxygen-absorbing property from the beginning of filling the container is achieved by selecting an average particle size of the island portions to be not larger than $3.5\text{ }\mu\text{m}$ and by setting a ratio N/M of the total surface area N of the island portions and the volume M of the packing container to be not smaller than 20 cm^{-1} .

5. In response, Takagi discloses that the size of the island phase is usually 0.1 to $10\text{ }\mu\text{m}$ in major diameter [0046]. Takagi is discussing the thermoplastic resin composition with respect to component A and component B. The applicant discusses that Takagi discloses that the island portion has a weight average particle size of not smaller than $3\text{ }\mu\text{m}$. The thermoplastic resin composition is one that contains two intermediate compositions are mixed to form the island-and-sea micro structure [0054], wherein the examiner is referring to the pure component A and component B island-and-sea micro structure discussed in paragraph 0046 of Takagi. The applicant claims "wherein the island portions in the oxygen absorbing layers have an average particle diameter of smaller than $3.5\text{ }\mu\text{m}$ ". Thus, the particle size of Takagi disclosed in paragraph 0055 still falls within the claimed range of the applicant.

6. The applicant argues that the mechanical strength and heat resistance of the composition of Takagi is attained through the presences of carbon black.

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7. In response, Takagi discloses previously before the mention of carbon black that forming thermoplastic resin compositions in the island-and-sea microstructure forms molded articles with excellent mechanical strength.

8. The applicant argues that Takagi and Kikuchi are not analogous art.

9. In response, Takagi and Kikuchi are analogous art, because they are directed to forming molded articles with improved mechanical strengths and modability.

In order to rely on a reference as a basis for rejection of the claimed invention, the reference must either be in the field of Appellants' endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned. A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem. Where the general scope of a reference is outside the pertinent field of endeavor, the reference may be considered analogous art if subject matter disclosed therein is relevant to the particular problem with which the inventor is involved. Any need or problem known in the field of endeavor at the time of the invention and addressed by the patent or application at issue can provide a reason for combining the elements in the manner claimed. *KSR International Co. v. Teleflex Inc.*, USPQ2d 1385, 1397 (2007). Thus a reference in a field different from that of Appellants' endeavor may be reasonably pertinent if it is one which, because of the matter with which it deals,

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logically would have commended itself to an inventor's attention in considering his or her invention as a whole.

In determining whether prior art is non-analogous art, while a reference may be directed to an entirely different field of endeavor than that of the claimed invention, the reference is still anticipatory if it explicitly or inherently discloses every limitation recited in the claims. *State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1068, 68 USPQ2d 1481, 1488 (Fed. Cir. 2003). A reference which is outside the field of the claimed invention is analogous art if it recites, explicitly or inherently, every limitation or structure of the recited claims. It is not necessary for the invention in the reference to intend to accomplish the purpose of the claimed invention. The invention in the reference must simply be capable of accomplishing the purpose of the claimed invention. Intuitively, the similar purposes can be accomplished by identical inventions containing identical structures.

10. The applicant directs all arguments toward the Takagi reference.

11. In response to Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELLEN S. WOOD whose telephone number is (571)270-3450. The examiner can normally be reached on M-F 730-5 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ELLEN S WOOD/
Examiner, Art Unit 1794

/Rena L. Dye/
Supervisory Patent Examiner, Art Unit 1794